# Insights on MD promotions on CR

In my analysis, I found that
1. MD is directly affecting PPC and CR,
2. MD has an impact also on Competitors and Display through PPC,
3. **Change In MD has Direct and Indirect Effect on CR**

I created Statistically calculated Chains named DAGs, which are flow charts that move in one direction and shows which variable is causing another variable in whole data and creates a one-way chain,
In this statistically calculated Chain and effect relationship flow chart you see below in Figure 1.1 , we can see MD is affecting CR through **MD → PPC → CR** and also Directly with **MD → CR**
There are also other factors that are affecting CR through PPC, namely **Budget → PPC → CR**

Fig 1.1
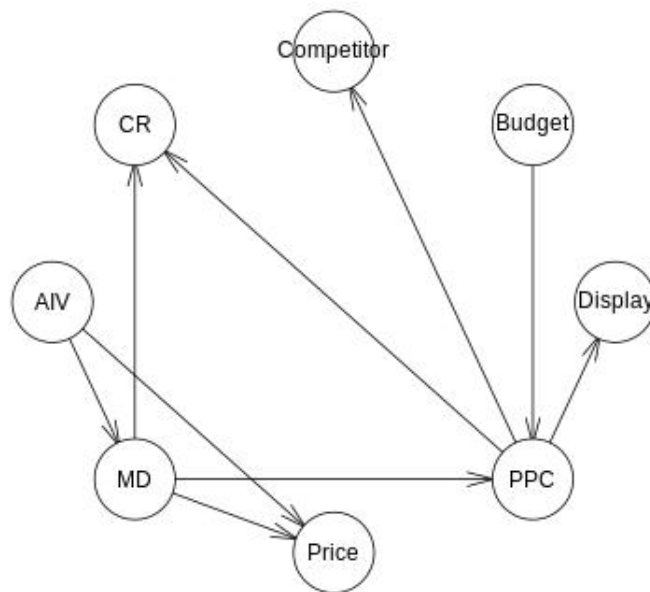
But the goal of the analysis is to see, how much MD is affecting Directly or Indirectly at CR, So I created a Probability model which tells us what will happen to CR if MD is at a certain level which is learned from the history of data itself by statistical models.
 So I generated some Probabilities to find out the estimated effect of MD on CR, through the insights in data,

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Probability: Meaning the chances of change in CR if the given variable example MD has already changed
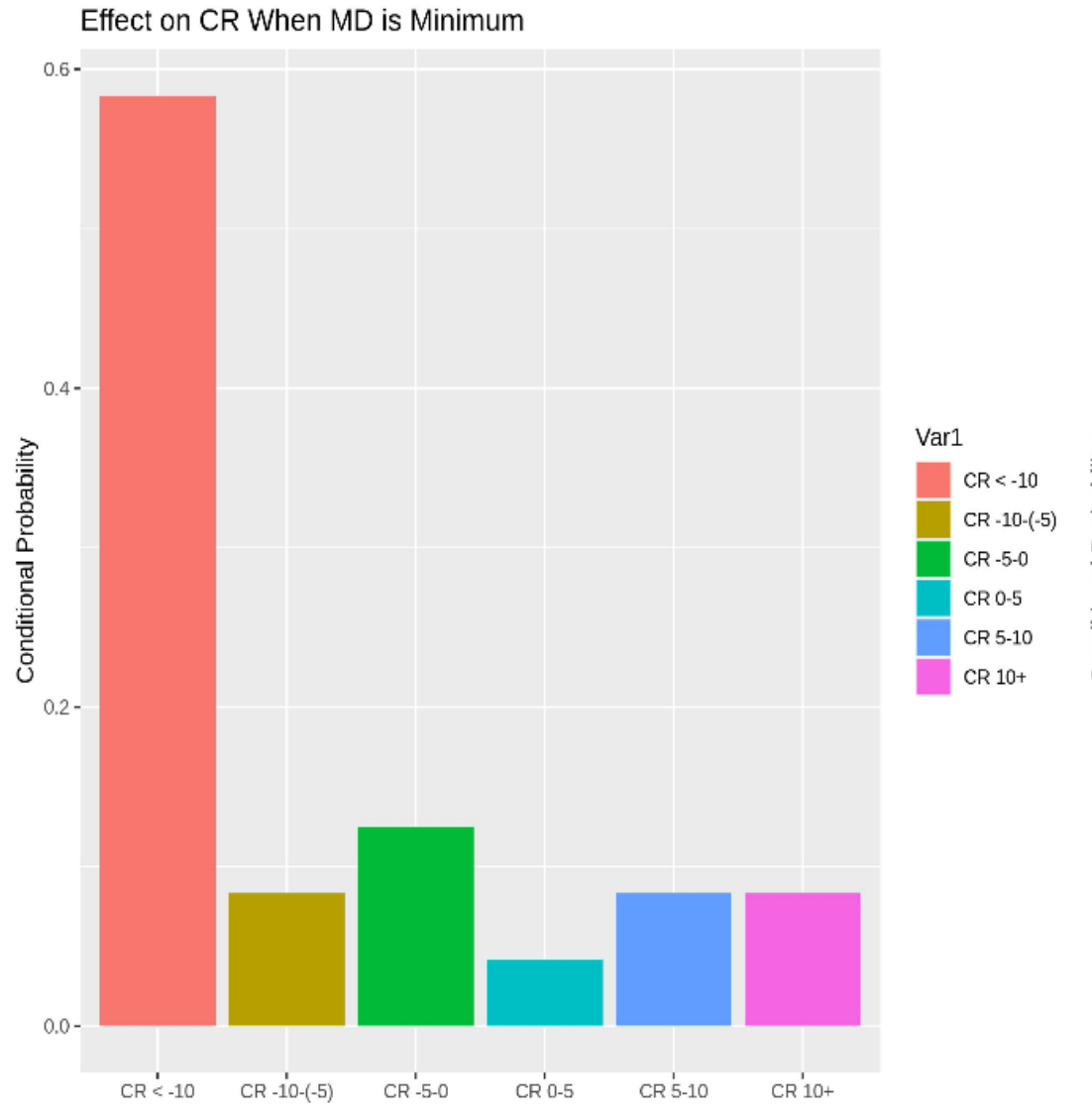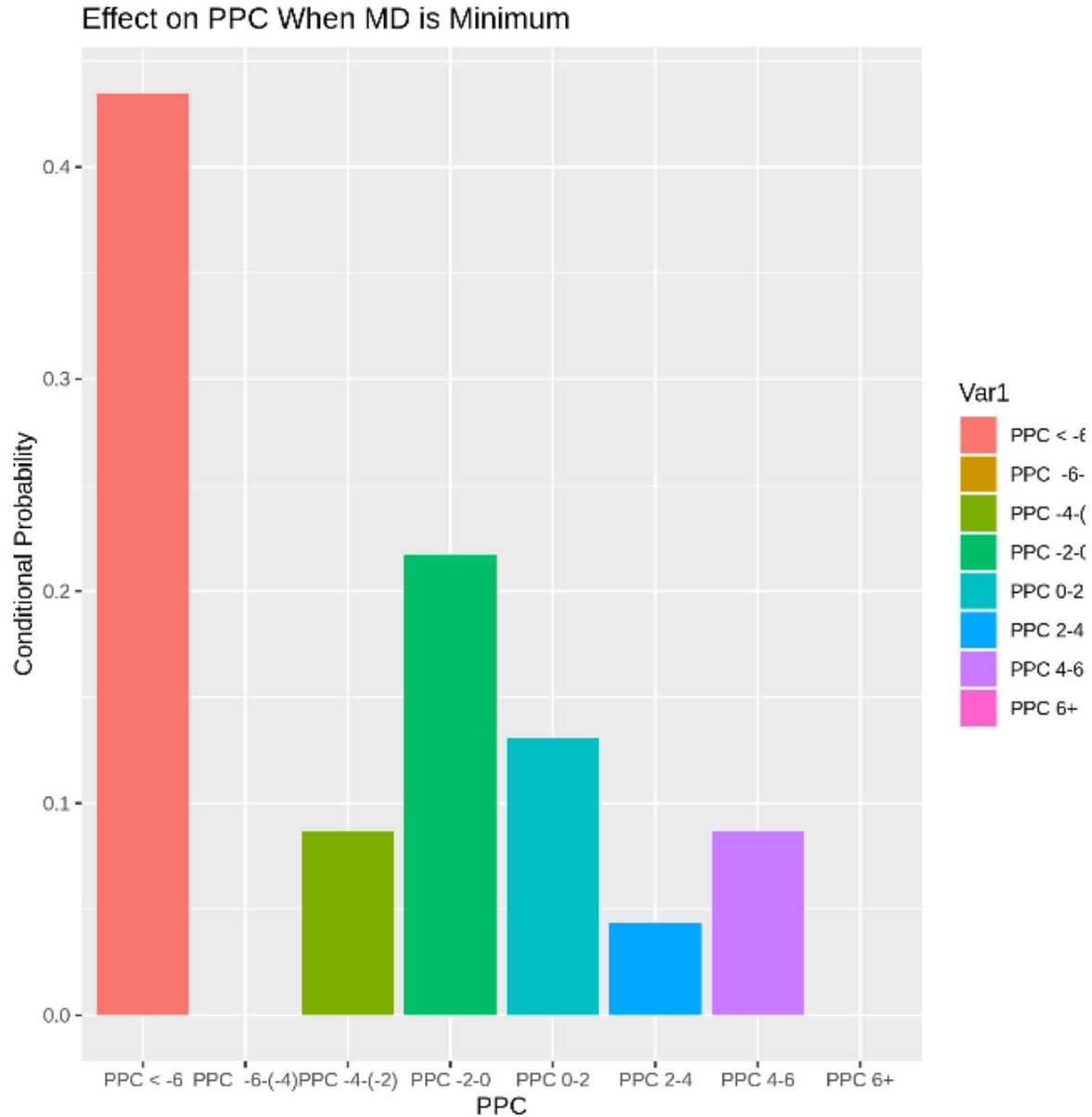

- When MD is Minimum(minimum value in database), the probability of CR being low is nearly 60%, So the relationship says that MD is affecting CR so much at low levels that
  That if do discount on a product very low (minimum) the chances of having low CR for that product is 60%

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Effect on CR When MD is Maximum
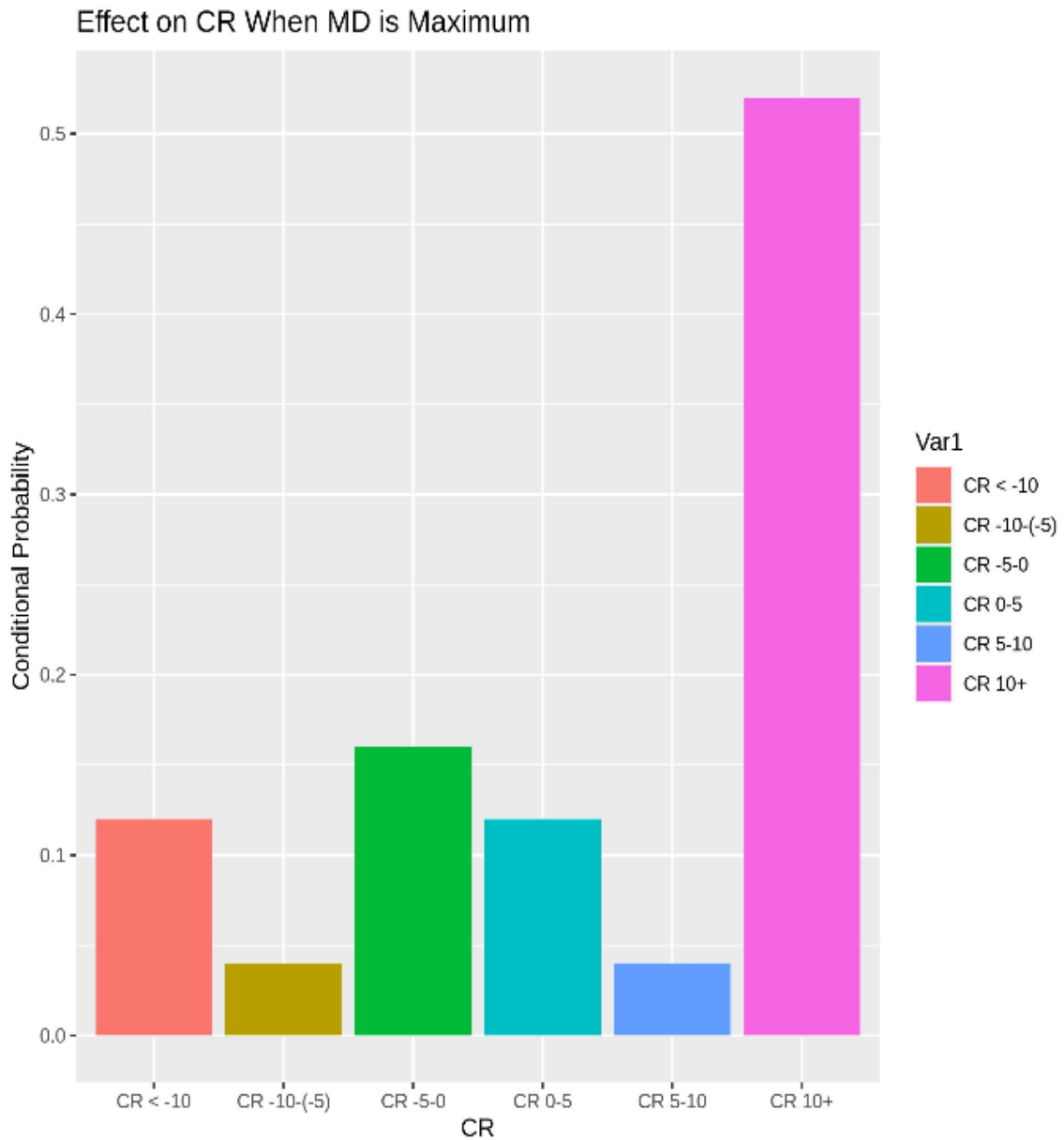
- When MD is Maximum(maximum value in database), the probability of CR being high is nearly 52%, So the relationship says that MD is affecting CR so much at high levels that That if do discount on a product at maximum levels the chances of having highCR for that product is 52%

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Effect on PPC When MD is Minimum

- When MD is Minimum, the probability of having Low PPC is 40% which means that if MD is at a minimum level in the database, there are 40% chances (probability) that web marketing spending on that product will also be low

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Effect on PPC When MD is max
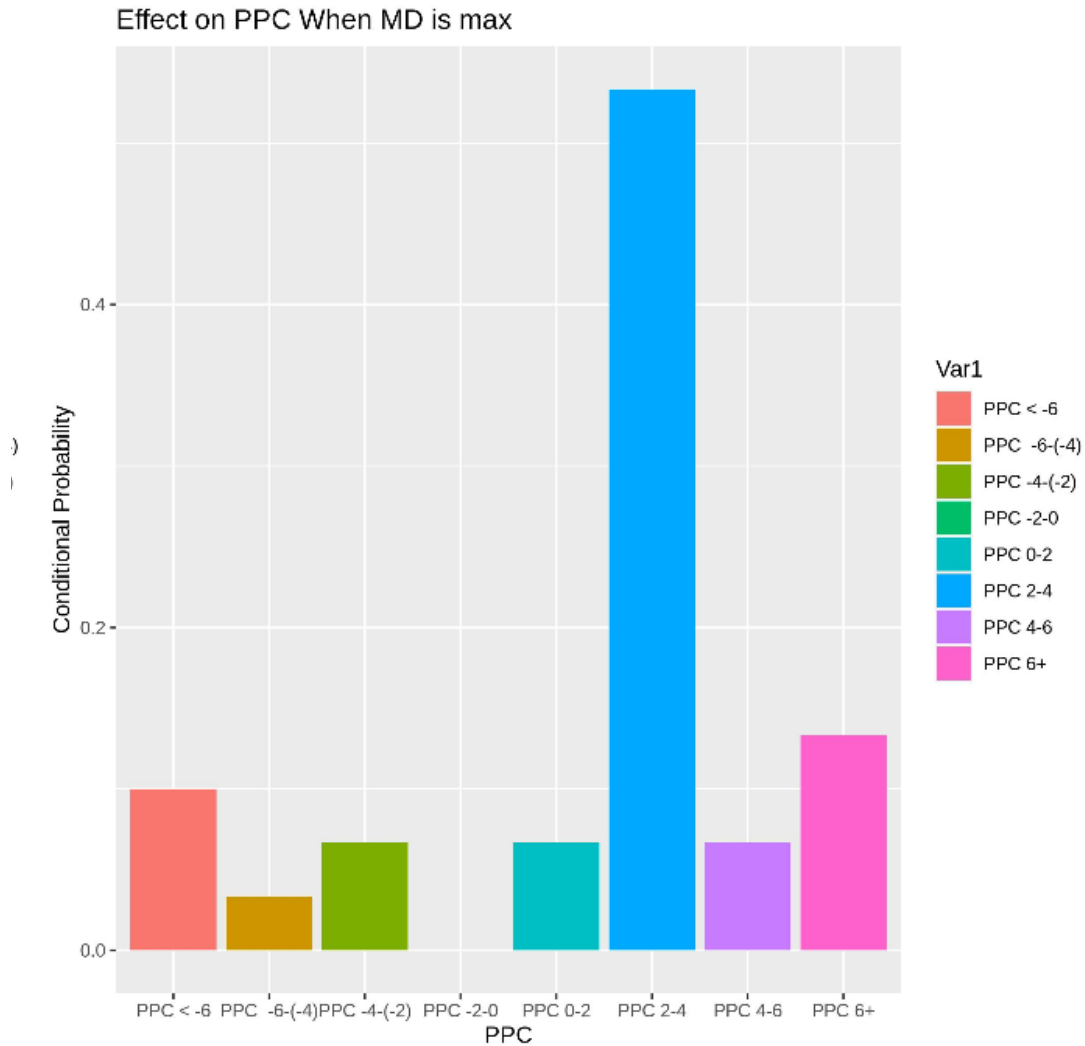
- When MD is maximum, the probability of having a PPC of more than 2 is more than 50 % meaning , if MD is at maximum level of database , the chances of web marketing spending on that product is between value 2-4 nearly 50%